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NPIC/P&DS/D/6-760
November 1965

MEMORANDUM FOR THE RECORD

SUBJECT: High Qulaity Office Copy Camera

I Discussed the requirement as stated by Vince with representatives of [redacted] None had a solution which would satisfy Vince. All required at least two steps in the operation. This was not satisfactory to CSD. I Wrote development objectives when exhausted possibilities of shelf items.

25X1

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[redacted]
P&DS/DB/SSS

Distribution:
Original - Project File/DB (#99085-5)
1 - Chrono/DB

clc

NGA Review Complete

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1. Introduction

These objectives propose the development of an office copier capable of producing positive copies of photographs and half tones (black and white, black and white or color) as might be found in books, magazines, newspapers or as single prints. The device will have a variable ratio reduction system in order to reproduce 3"x5" prints from various input sizes. The concepts involved are well within the current state-of-the-art. The challenge comes in the design of the equipment.

For years libraries have used cross-reference

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card catalogues and circulated abstracts to acquaint readers with the printed material available to them. The idea now is to extend this same reperencing system to photo and graphic materials. By cataloging small indexed copies and by circulating similar copies of picture and diagrams, it is hoped that researchers will be made aware of what pictoral information is available. #

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2. Concept

2.1. Purpose. The purpose of this device is to enable the library staff to produce good quick index copies of graphic material as the material is acquired. Conventional photo copying requires the use of a laboratory containing several pieces of equipment as well as trained technicians. Present office copiers can not faithfully reproduce halftone and continuous tone prints and only one can make copies from books.

2.2. Scope. The primary objective is the quick, faithful

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reproduction of continuous and

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found in photographs, magazines or books)
half tone prints. Also of primary concern is the cost
of materials as well as the cost of the original
development. This device could have a good
commercial market and if the device were designed
with the commercial market in mind as well as
the government; the development costs would
be ~~reduced~~ spread among the many consumers.
Of slightly lesser importance and dependent
upon costs, is the variable reduction system.
This system can have several fixed reduction
ratios or be continuously variable, to accommodate
[illegible] The advantage of

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have considerable leeway in designing this ~~piece~~ copier ~~of equipment~~ bearing cost and quality in mind.

2.3. Philosophy. The contractor should look at these requirements in respect to commercial requirements and design this copier to satisfy both thereby keeping the actual cost to the government at a minimum. These ~~requirements~~ requirements are ideals to be used as guidelines and can be modified should they prove highly impractical so long as the primary ~~goals~~ objective is satisfied.

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3. General Description

3.1. (From the operators view) The design of this device is envisioned to be along the lines of the "Xerox 914" office copier.

3.2. The device will contain either a turret arrangement of perhaps four fixed magnification lenses or (one lens in) an auto-focus variable magnification set up. The control for the reduction ratio will be on the operators console.

3.3. The illumination might be either a flash, a steady light or a scanning light depending on what is most practical.

3.4. The imaging system could [illegible]

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of a number of processes either dry or wet, provided that it is rapid, completely automatic and only requires infrequent replenishment of materials.

3.5 The copier will have the ability to reproduce copies from continuous-tone, half-tone or line prints; color or black and white; single sheets or pages of bound volumes; various sizes of prints up to 10½" x 17½".

3.6 The output of the copier will be black and white, 3"x5" copies of sufficient quality to legibly reproduce a typed line of print when reduced 3.5 times (or about 10 lines/inch). The output will be a continuous tone copy.

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4. Requirements

4.1 The optical system will be of sufficient quality to produce prints with a resolution of at least 10 lines/mm. The optical system must be free of any distortions which might be detected on the final copy.

4.2. The copier must be able to withstand daily operational use with a minimum of down time. This might require of 500 copies per day or more with only one hour of maintenance a month or less.

4.3. The copier must be simple to operate.

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The intent is to have clerks or other non-technical workers operate and maintain the device.

4.4. The copies must compare in speed to other commercial copiers.

4.5. The replenishment of materials should be as easy and simple as possible. The machine should have a large enough capacity to store materials for 200 copies.

4.6. The copier must be able to operate on 60 cycle 120 volt 20 amp line current. The machine must [illegible] to accept line voltage drops during the day of up to volts

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25X1 50 452 [redacted] discussion of requirements

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relatively good ~~[illegible]~~ camera 20-30 6mm prints?

2. produce 1 to 15 copies of either ~~4"x5" print~~ or anything up to 11"x14" magazine size

3. All copies produced on standard 4x5 (?) size

4. Operation must be completely automatic i.e. auto focus, auto light control, auto loading and cocking, rapid auto processing, auto enlarging

5. Machine should be kept to minimum size and be easily portable,

6. Cost of prints should not exceed cost of T&M for lab to do same job.

7.

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